Abstract ID : 940

Title : Divergent behavior by subgroups of an extremely small resident population of bottlenose dolphins, Tursiops truncatus: resource partitioning or social isolation?

Category : Behavior

Student : Not Applicable

Preferred Format : Poster Presentation

Abstract : We conducted 74 days of focal follow surveys on bottlenose dolphins, Tursiops truncatus, in North Inlet, South Carolina, USA, between July 31, 2001 and January 7, 2003. Total time spent on dolphins was 263 hours. Behavioral category and GPS location were recorded at three-minute intervals. The tidal creeks of North Inlet, which cover only 20.6 % of the 32 km^2 salt marsh system, support a resident population of 10 bottlenose dolphins. Dolphins are defined as residents if sighted in more than one year and in 3 of the 4 seasons. Despite overlapping ranges, two separate subgroups of resident dolphins had minimal interaction with each other during the study period. We hypothesize that the two subgroups were partitioning resources, feeding primarily on different prey species at different locations and at different tidal stages. The smaller subgroup consisted of 2-3 animals, but was joined by 2 non-resident dolphins for part of the year. This group spent majority of the time of their time in only 1.9 km^2 of marsh creeks. The other sub-group rarely used this area. Data will be presented demonstrating the use of different primary feeding behaviors at different tidal stages for the two subgroups. Whether resource partitioning has led to social isolation, or the reverse, it is remarkable that such partitioning exists at all, given the small size of the resident population and the small area of the system.